

April 3, 2019

I am deeply disturbed by the contents of this petition. This vague, meandering, and weakly aspirational proposal does not further the goals of amateur radio or the Amateur Radio Service. What is suggested runs counter to the essence of amateur radio and smacks of a straight-up attempt to “commercialize” the Amateur Radio Service.

When the petitioner states at the beginning of the proposal that they have a background in a two-way radio shop and the land mobile radio business, specialized in land mobile radio issues before the commission, and written numerous articles for land mobile trade magazines, this strongly suggests an ulterior motive in submitting this petition.

When the petitioner states in paragraph 3.71, *“Your spouse, your kids, your siblings, your grandchildren and your friends will be more able to share your hobby. From the start, getting on-the-air will make it fun.”* this simply repeats the sales mantra of the FRS/GMRS radios currently on the market. Anyone can “share” in the amateur radio hobby; all they must do is study and pass an exam rather than simply unbox a product and install the batteries. Studying and passing an exam is far more rewarding than trying to achieve instant gratification.

There are five areas that are of concern regarding this petition: an age restriction, an exam structure, an undefined mentor role, an equipment conflict that would greatly complicate any enforcement actions, and the lack of advancing the radio art.

### **Age Restriction**

I would remind the commission that amateur radio has NEVER had an age restriction. Obtaining a license has always been based on ABILITY rather than age or financial status. For this reason, I am deeply concerned about the age-related criteria stipulated in the petition. In paragraph 4.1 the petitioner states, *“A Tyro Class License will be issued to anyone not otherwise ineligible that has reached the age of eleven years and has passed an “on-line” test consisting of a few question(s) dealing with radio etiquette and Amateur Radio Rules.”* Essentially, this “exam” would consist of nothing more than learning how to talk on a radio and understanding a few rules and regulations. This does nothing to address the goals of Part 97.1 (Basis and Purpose) with regards to “advancing skills in both the communication and technical phases of the art.”

I strongly take exception to the comments made in paragraph 3.34 by the petitioner stating, *“Even today’s technician test is too advanced for most Boy Scouts.”* I have taught both Technician Class and General Class licensing courses to students of all ages. Generally, those who abandoned the course either didn’t have the interest to begin with or were too busy with other aspects of their life to complete their studies. I have been impressed by young students who “dropped out” of my courses, only to decide that they could get through the material faster on their own and take the exam as soon as it was offered. I’ve also had adults drop out of the courses because they simply couldn’t understand the math or electrical concepts covered in the material. I can remember one adult who didn’t understand that the symbol “/” could be used to express division rather than “÷” as taught in elementary school.

The material covered in the Technician and General Class courses does have significant overlap and needs to be revised/updated to be more relevant for the technology that amateur radio operators are working with today. That is a topic that needs to be worked out within the amateur radio community, the NCVET and the commission in order to comply with all applicable international laws and treaties.

In paragraph 1.1 the petitioner states, *"...Tyros will benefit from skills some techs took to their first radio class...skills these classes folded into the radio art.... Skills even the extra class exam does not test. In short, we already have technicians with noteworthy leadership, didactic and social skills. We need to give them more responsibility, not less respect."* It is unclear what is meant by this statement. No one in the Amateur Radio service "disrespects" Technician Class operators! Technician Class operators have multiple opportunities to participate in all aspects of Amateur Radio. While they cannot currently proctor VE examinations for Technician applicants, this maybe be a topic that the commission would want to consider revising.

### **Exam Structure**

The on-line exam, with a single proctor/mentor is ripe for abuse! At least the current three-person VE session rules offer an exam setting that can be monitored to avoid attempts at cheating.

In paragraph 3.41 the petitioner states, *"This idea cannot present much risk. The Family Radio Service (FRS), the Citizens Band Radio Service (CBRS), the Multi-Use Radio Service (MURS) and the General Mobile Radio Service (GMRS) have no test at all. Of the four, only GMRS is even licensed. Unlike Amateur Radio, these other services provide nothing guiding their neophytes."* I strongly disagree with this statement! There is the potential for much risk in holding an online exam that is "proctored" by only one individual. In paragraphs 4.2-4.4 the petitioner states, *"The on-line test shall be proctored by a current Amateur having a Technician or higher class license; the proctor is identified as part of the on-line test." Further, an Amateur having a Technician or higher class license must agree to be the Tyro's mentor; the mentor is identified as part of the on-line test. The proctor and mentor can be the same person."* For example, there is nothing to prevent a parent from "mentoring" their child to receive a Tyro license. This smacks of a potential conflict of interest, with no way to verify that the actual Tyro applicant took the exam themselves. It is for this reason that the existing amateur radio VE sessions, proctored by three or more persons unrelated to the applicant, are so successful in preventing cheating. Also, considering how the FCC has allowed the FRS/GMRS radio market to "run amok" without adequate enforcement of how radios are being used, I find it difficult to believe that this new Tyro license is going to address improper use by unauthorized persons. The above-mentioned radio services do not require that the applicant take an exam. Instead, they only required that the applicant fill out an application and pay the associated licensing fee.

### **Undefined Mentor Role**

In paragraphs 4.2-4.4 the petitioner states, *"Further, an Amateur having a Technician or higher class license must agree to be the Tyro's mentor; the mentor is identified as part of the on-line test. The proctor and mentor can be the same person."* Besides the potential conflict of interest mentioned above, what provisions would exist for a mentor to pull out of the relationship? Would the Tyro licensee then lose their license because the mentor no longer wished to continue in that role?

Would the mentor be liable for the actions of the Tyro licensee? This would be unprecedented in that one amateur would be legally responsible for the actions of another! Only parents and guardians are legally liable for the actions of their minor children!

In paragraph 1.4 the petitioner states that *“Tyros (and all amateur licensees) can use 99, (2.5kHz deviation, 12.5kHz spaced) analog FM repeater/simplex channels located on our 70cm band. ...These channels are called the TyroSubBand. Interoperability is a major priority for this Sub-Band. ...These are the only frequencies upon which the Tyro Class License may transit without supervision.”* How is this any different than what current Technician Class operators are permitted to do in the 70cm band? Also, how does the “mentor” factor into this given that the licensee may transmit “without supervision.” Current Technician Class operators operate “without supervision” since they have been duly licensed in accordance with FCC regulations.

### Equipment Conflicts

The proposed changes conflict with existing 70cm band plans. Also, there are no “Tyro only” radios available nor are there any provisions to prevent someone from purchasing a radio today and inadvertently operating it outside of the proposed Tyro power, frequency and emission modes. Instead, such usability restrictions are typically found in consumer-grade equipment such as FRS/GMRS, CB, etc. radios and takes the guesswork out of operating a radio with no technical background.

In paragraph 1.23 the petitioner states, *“...The Tyro License is exceptionally important to FEMA’s CERT program. It allows ARES to solve CERT’s communication problems. ...This Rule Making facilitates exigent radio communication services nonexistent today and it does this with little risk on almost vacant spectrum. In a decade, ARES/CERT could build interoperable TyroSubBand repeaters distributed nationwide along major highways and covering population centers. ... It might be useful for Congress to insure Amateur Radio’s access to interstate medians.”* Have representatives from FEMA/CERT specifically petitioned the FCC for access to radio spectrum? Just how critical is this need, and why can’t it be met by existing amateur radio licensees?

While aspirational in its reach, the proposed distribution of repeaters along major highways, etc. requires access to existing infrastructure, donations by private corporations or landowners, and appropriate consideration of public land use. This cannot be mandated by the FCC since individual states have different criteria with regards to land use. Also, highways do not fully encompass “communities” that CERT is trying to reach, nor would an eleven-year-old Tyro operator be able to physically access such locations on their own without someone else providing transportation for them. (i.e., 11-year-olds are not able to drive a motor vehicle!).

In paragraph 1.11 the petitioner states, *“TyroRadios have restrictions... 20 Watts, restricted remote control. Tyros may use more advanced radios with adequate supervision.”* Currently, there are no 20-Watt only radios offered for sale in the amateur radio market. Interestingly, 20W mobile radios are sold in the GMRS market. Most amateur radios offer operation up to 50W by default. Also, it is not clear what is meant by allowing use of “more advanced radios with adequate supervision.” Does this mean that a Technician or higher-class licensee must act as a control operator?

In paragraph 1.12 the petitioner states, *“Tyro traffic may also be retransmitted beyond the TyroSubBand (for example, 70cm-to-2meter cross-band or linked repeaters). The frequencies used for these repeated transmissions are limited to the frequencies and modes permitted to the repeater licensee. This extends the scope of Tyro traffic without their being technically responsible for the transmissions.”* I have great concerns about the fact that the repeater operator is now being held responsible for the potentially improper use by Tyro Class operators. The Tyro operator needs to be RESPONSIBLE for their transmissions rather than shifting the burden onto the repeater trustee.

In paragraphs 4.81-4.86 the petitioner mentions the topic of *“Equipment Technical Compliance.”* The wording of this section smacks of standard FCC “type acceptance” practices for commercial radio manufacturers. Amateur radio license holders are NOT paid for their efforts in such activities! Amateur radio operators do not work for remuneration or pecuniary interest!

### **Lack of Advancing the Radio Art**

Nothing in the Tyro license description furthers the advancement of the radio art in accordance with Part 97. The emission modes and power levels are fixed. There is no opportunity to experiment with other modes of communications. Rather, the entire focus is on providing “turnkey” radios and licensing to meet an unverified need that CERT requires more radio spectrum. Amateur radio has always offered its technical capabilities, and operator training, to support emergency communication. Amateur operators could continue to support CERT, ARES, etc. without the restrictions of the Tyro license.

The petition does not mention, nor does it encourage the use of newer digital communication modes such as DMR, DSTAR, System Fusion, AREDN, etc. or any of the explosive growth in cross-mode networking. Instead, this proposal simply calls for using narrowband FM technology that is rapidly falling out of favor in amateur radio. There is no explicit mention of encouraging experimentation. Instead, the focus is on operating existing “out of the box” radios. At least the current Technician Class license at least encourages amateurs to try new things.

### **Alternate Recommendation**

In paragraph 3.74 the petitioner states, *“The Petition also affords low-risk opportunity for equipment suppliers. They want to add new radios, new repeaters and new networks. The Tyro license adds thousands of new customers.”* **The Amateur Radio Service does NOT exist to explicitly create economic revenue for equipment suppliers!** Again, I feel that this application is looking for an excuse to either re-band GMRS equipment or turn amateur radio into a commodity market, rather than encouraging the basis and purpose of Part 97. Other radio services (FRS, GMRS, etc.) exist today to support the petitioner’s economic model.

Rather than change the licensing structure for Part 97, the goals stated in this petition could readily be met by simply filing for a GMRS license. To address the age recommendation, the FCC could simply change the applicant age limit from 18 years to 11 years as part of the GMRS application process. Since all the radio-related capabilities expressed by this proposal are currently met by the GMRS equipment, why not come up with a “CERT” application fee that would be different than the standard fee?

Respectfully,

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